**IT Applications Unit 3, AOS 2, Organisations and Data Management**

**Structure and role of relational databases, p 97**

1. What is a flat file database?

A flat file database is known as a single table database. It stores data in tables consisting of rows and columns.

1. Define each of the following terms:
   1. Primary key

A field attached to each record in a database. A primary key uniquely identifies each record in a database table.

* 1. Field

A field is a specific piece of information or a single entry of data. E.g. a field containing the word ‘green’

* 1. Record

A record is a set of data about on entity (e.g. a person, event or object). Records are commonly organised into rows.

* 1. Form

Allows an input screen to be formatted and linked to an underlying table or query.

* 1. Query

A query is used to filter a set of data. This is usually turned into usable information by putting it into a report.

* 1. Report

Formats the query data and allows you to add summary stats. E.g. total amounts as well as headings to make the info easier to read.

* 1. Macros

Procedures can be automated by macros. When run they will carry out a set of predetermined tasks (e.g. print a report).

**Data types and formats**

1. List the following **data types** and characteristics of each with examples.
   1. Text, (string) String data types include a series of symbols or values, such as a character string (a sequence of characters) or a binary string ( a sequence of binary values

Alphanumeric- Names, addresses, postcodes and telephone numbers

* 1. Numeric

Numbers Only- Any number that will be used in a calculation

* 1. Currency

Numbers, but un dollar amounts, formatted with $ symbol and .00 as a default- Any number used to represent a financial value

* 1. Date/time

A variation in numbers, formatted to rep a date and/or time – Any date; can be used in calculations.

* 1. Boolean

Represents one of two states – true or false - Also rep as yes/no or on/off

* 1. Object

Image, audio, video or similar – media or other docs.

* 1. Memo

Like text, unlimited, not searchable – Any long selection of text.

1. **Data Formats:**

Elaborate on the following common data formats:

* 1. Text

Alphanumeric values, a field designed o hold a name is regarded as text.

* 1. fixed decimal places

Certain numeric values, e.g. dollars and cents or when rounding occurs. Need to be formatted with a fixed number of decimal places. They will appear even for whole numbers, e.g. 3.00

* 1. Date

Can be displayed in different ways – 31/03/11 or 31-Mar-11 (this is preferred)

* 1. Date/time

12 or 24-hour clock. Variation of date in which minutes and seconds can be shown if necessary. In a 12-hour clock time starts at 12:00 and goes to 11:59 a.m. or p.m. A 24-hour clock starts at 00:00 and goes to 23:59.

* 1. Dollar, currency

Uses the $ symbol; defaults to .00 after the value

* 1. True/false, Boolean logic

Can be displayed as text (true/false, yes/no) or as a box or check that requires ticking, marking, etc